

REMARKS

This is in response to the Office Action dated March 25, 2004. In view of the foregoing amendments and following representations, reconsideration is respectfully requested.

On page 2 of the Office Action, claims 1-3, 8, 9, and 16-21 are rejected under 35 U.S.C. § 103(a) as being unpatentable over the conventional slasher described on pages 1-2 of the present application in view of the teachings of Lambert et al. (USPN 4,577,476). Also, claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lambert in view of Himes (U.S. Patent No. 5,904,773).

Based on the amendment to claim 1, it would appear that the ground of rejection, which was applied to claim 22 (rewritten in independent form) in the previous Office Action, is the most relevant. Since the amendment to claim 1 raises the same issue involved in the rejection of claim 22, it is submitted that the amendment to claim 1 does not raise any new issue that would require further consideration and/or search.

The rejection of claim 22 is respectfully traversed for the following reasons.

Lambert discloses a finishing apparatus for applying an "atomized" spray solution to a fabric in order to produce a uniformly finished fabric. Note that the Lambert device is a solution to the problems inherent with wet pickup finishing accomplished by "spraying, immersion, padding, foam application, engraved roll, kiss roll, loop transfer and knife coating" (see col. 1, lines 9-12).

In the Lambert device, a chamber 1 is fitted with two spray nozzles that deliver air and solution from a storage tank 24. Additional air is supplied to chamber 1 through

manifold 3 which is located below the spray nozzles 2. The additional air increases the velocity of the atomized spray particles, and aids in transporting the “atomized” particles upwardly through upper opening 5 so as to bring the solution into contact with a fabric 8.

With the Lambert apparatus, the application rate of the solution to the cloth per unit of time is small, and it takes a significant amount of time to apply a sufficient amount of solution to the cloth. Accordingly, if the Lambert apparatus is applied to a unit for applying moisture to a warp sheet, the running speed of the warp sheet would have to be reduced so that a sufficient amount of moisture could be applied to the warp sheet. And thus, the availability factor for the warp sizing unit would be sharply reduced.

In contrast, the present invention is configured such that the moistening unit is provided over the warp sheet, and water and so forth are sprinkled from above, so that an appropriate amount of moisture can be applied to the warp sheet without reducing the availability factor of the warp sizing unit.

In the proposed Lambert/Himes combination, the Examiner suggests that it would have been obvious to one of ordinary skill in the art “to provide spray from above the fabric since fabric is conveyed in a longitudinal, horizontal path of travel.” However, the Examiner does not explain how the Lambert apparatus would have been modified in view of the Himes teachings or provide any explanation as to why such a modification would have been obvious. The fact that the fabric is conveyed in a longitudinal, horizontal path of travel is not a reason to combine the references.

In the Lambert apparatus, the “atomized” spray solution is necessarily applied from below the fabric (see col. 2, lines 43-61). Note that the Lambert disclosure explains that the fabric forms “a tight seal over the end of extended opening 5a so that the fabric 8 efficiently intercepts the solution cloud as it exits extended opening 5a.” This arrangement is essential to the operation of the Lambert finishing apparatus.

Himes discloses a fluid delivery apparatus in which nozzle plates 40 are provided on opposite sides of a path of travel of articles being treated by the fluid. It’s not clear what possible application the teachings of Himes would have in the environment of Lambert. Note that the mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. In re Mills, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990). “Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination. Under section 103, teachings of references can be combined only if there is some suggestion or incentive to do so.” ACS Hosp. Systems, Inc. v. Montefiore Hosp., 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984).

As indicated above, the statement of the rejection does not set forth any motivation that would support the proposed combination. Since the Examiner’s conclusion of obviousness does not set forth the requisite motivation, the Examiner has not established a *prima facie* case of obviousness at least with respect to the rejection of claim 22.

Furthermore, the combination proposed by the Examiner would completely change the principle of operation of the Lambert apparatus. As indicated above, Lambert employs a cloud of solution to efficiently apply the solution to the fabric while avoiding loss of the solution to the surrounding environment. Clearly, applying solution from above the fabric would destroy the intended purpose of the Lambert apparatus. If a proposed combination would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. In re Gordon, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984).

In view of the above, it is submitted that claims 1 and 22 are clearly allowable over the collective teachings of the Lambert and Himes patents.

Further, Applicant continues to assert that the object of the Lambert device (i.e., uniformly applying a solution to fabric) addresses a technical problem that is completely different from that addressed by the present invention, and thus the nature of the problems to be solved are different.

Also, the technical challenge of the present invention is completely new in the field of sizing, and the improvement to the moistening unit would not have been obvious in view of the teaching of Lambert since the teachings of Lambert would have only been applicable to a finishing apparatus. In the conventional device, the finishing apparatus is represented by the sizing unit 5 and a drying unit 6. The moistening unit of the conventional device is not a finishing apparatus, but rather is an apparatus for applying moisture in advance of the warp finishing process. Thus, any application of

the teachings of Lambert in the environment of the conventional slasher would be to the finishing apparatus (i.e. the sizing unit). In other words, the Lambert teachings clearly are not applicable to the moistening unit of the conventional device. Therefore, there is no suggestion or motivation to modify the conventional slasher as proposed by the Examiner.

In view of the above, it is submitted that the present application is now clearly in condition for allowance. The Examiner therefore is requested to enter the above amendment and pass this case to issue.

In the event that the Examiner has any comments or suggestions of a nature necessary to place this case in condition for allowance, then the Examiner is requested to contact Applicant's undersigned attorney by telephone to promptly resolve any remaining matters.

Respectfully submitted,

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